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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,472	11/29/2001	Pradeep Trivedi	03226/139001; P6826	6172

7590

12/05/2002

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EXAMINER

NGUYEN, HAI L

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,472

Applicant(s)

TRIVEDI ET AL.

Examiner

Hai L. Nguyen

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 7-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 18, 19, 23-27 is/are rejected.
- 7) ☐ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Election

1. Applicant's election without traverse of claims 1-6 and 18-27 in paper No.6 is acknowledged. However, this application still contains claims 7-17 drawn to an invention non-elected without traverse. Therefore, a complete reply to this Office Action must include cancellation of non-elected claims.

Claim Objections

2. Claim 2 is objected to because of the following informalities: wherein the system clock is a system clock. It is redundant and should be deleted.
3. Claims 20-22 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Apparatus claims 20-22 cannot further define the method for detecting whether a phase locked loop is out of lock of claim 19.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

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(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1, 2, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tietz et al. (US 4,122,405).

With regard to claims 1 and 19, Tietz et al. discloses a circuit, and a method of use thereof, comprising an inherent phase locked loop having a phase-frequency detector (10), wherein the phase frequency detector inputs a system clock (18) and generates a chip clock (20), and wherein the phase-frequency detector generates pulses on a first signal (22) and second signal (24) dependent on a relationship between the system clock and the chip clock; and a lock detect indicator (12, 14, 16) that uses the first and second signals to determine whether the phase locked loop is out of lock (see column 2, lines 17 through column 3).

With regard to claim 2, Tietz et al. also meets the claimed limitations in the claims.

Claim 18 is similarly rejected. Note the above discussion with regard to claim 1.

6. Claims 1, 6, 18, 19, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ahn et al. (US 6,177,842).

With regard to claims 1 and 19, Ahn et al. discloses Figs.1-2B a circuit, and a method of use thereof, comprising an inherent phase locked loop having a phase-frequency detector (101), wherein the phase frequency detector inputs a system clock (Clkl) and generates a chip clock (Clkr), and wherein the phase-frequency detector generates pulses on a first signal (lockdet) and second signal (lockdetb) dependent on a relationship between the system clock and the chip

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clock; and a lock detect indicator (103) that uses the first and second signals to determine whether the phase locked loop is out of lock.

With regard to claim 6, wherein the lock detect indicator comprises reset circuitry that resets the lock detect indicator dependent on a reset input signal (reset).

Claim 18 is similarly rejected. Note the above discussion with regard to claim 1.

Claim 25 is similarly rejected. Note the above discussion with regard to claim 6.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-5, 23, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tietz et al.

With regard to claim 3, the lock detect indicator comprises circuitry (14) that generates a first lock indication pulse (28) if a pulse on the first signal is longer than a predetermined pulse width; circuitry (16) that generates a second lock indication pulse (38) dependent on the first lock indication pulse and a count value. The circuit of Tietz et al. meets all of the claimed limitations except for circuitry that uses the second lock indication pulse to dynamically generate a lock status signal, wherein the lock status signal is indicative of whether the phase locked loop is out of lock. However, it would have been obvious to one of ordinary skill in the art to implement circuitry to generate a lock status signal, as recited in claim 3, which is in each case

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optimally matched to its application. For example, implemented circuitry as inverter to invert the state of the second lock indication pulse. Since the second lock indication pulse (38) indicating an “in-lock” condition. Thus inverting state of the second lock indication pulse would be indicating an “out of lock”.

Claims 4, 5, 23, 24, 26, and 27 are similarly rejected; note the above discussion with regard to claim 3.

Conclusion

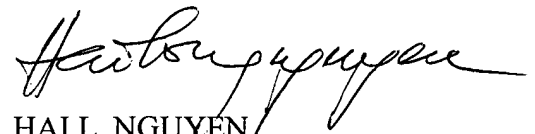
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hakkal et al. (US 6,404,240) is cited as of interest because it discloses a circuit and method of a three state phase frequency lock detector.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 703-306-9178 and Right Fax number is 703-746-3951. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



HAI L. NGUYEN
PATENT EXAMINER
December 4, 2002